



NuEdison

Bringing Solar Power Into the Mainstream

**Presented by:
Joe Lichy
President and CEO**



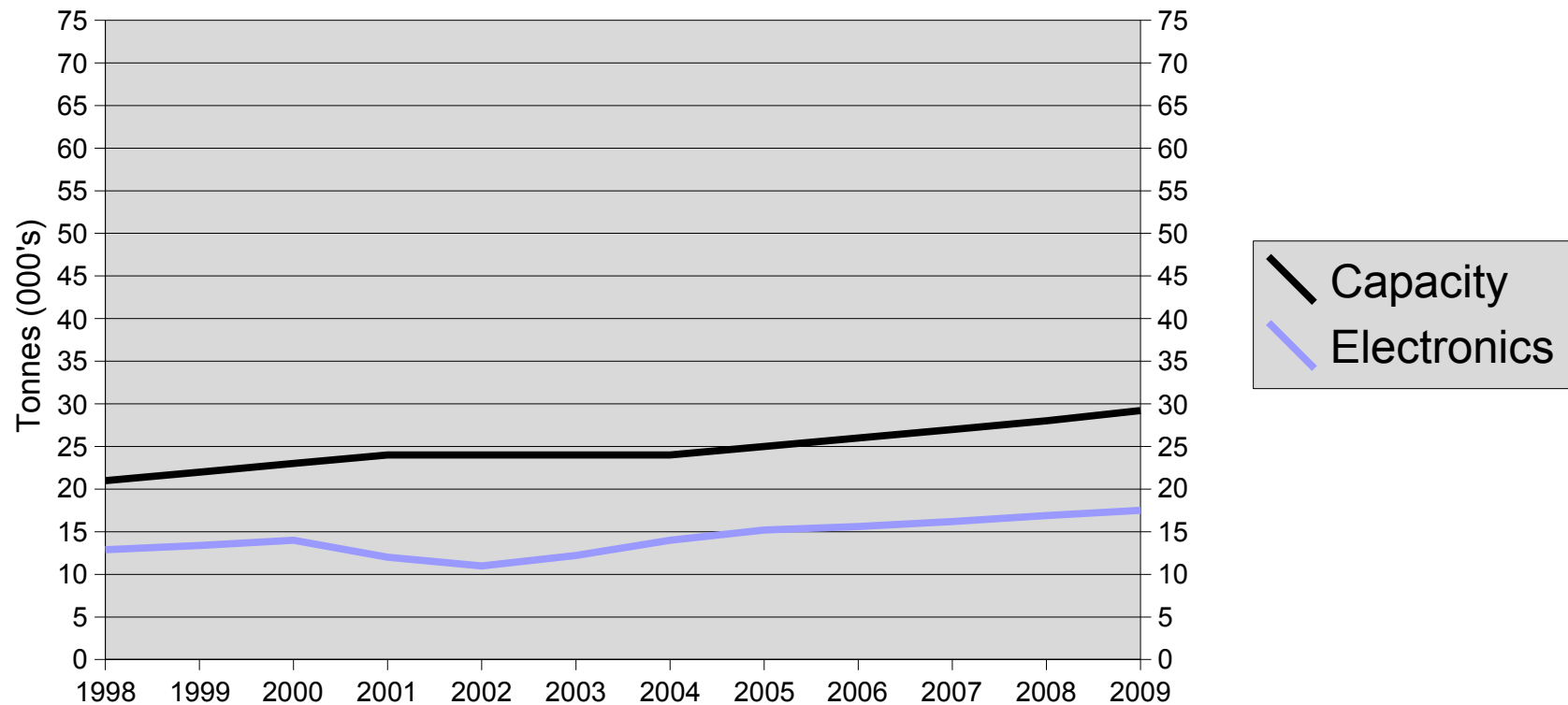
Sunnyvale



The Opportunity

- ◆ Since '70's PV used electronics scrap Si
- ◆ By 1998 some prime Si was needed

Semiconductor Grade Silicon Feedstock

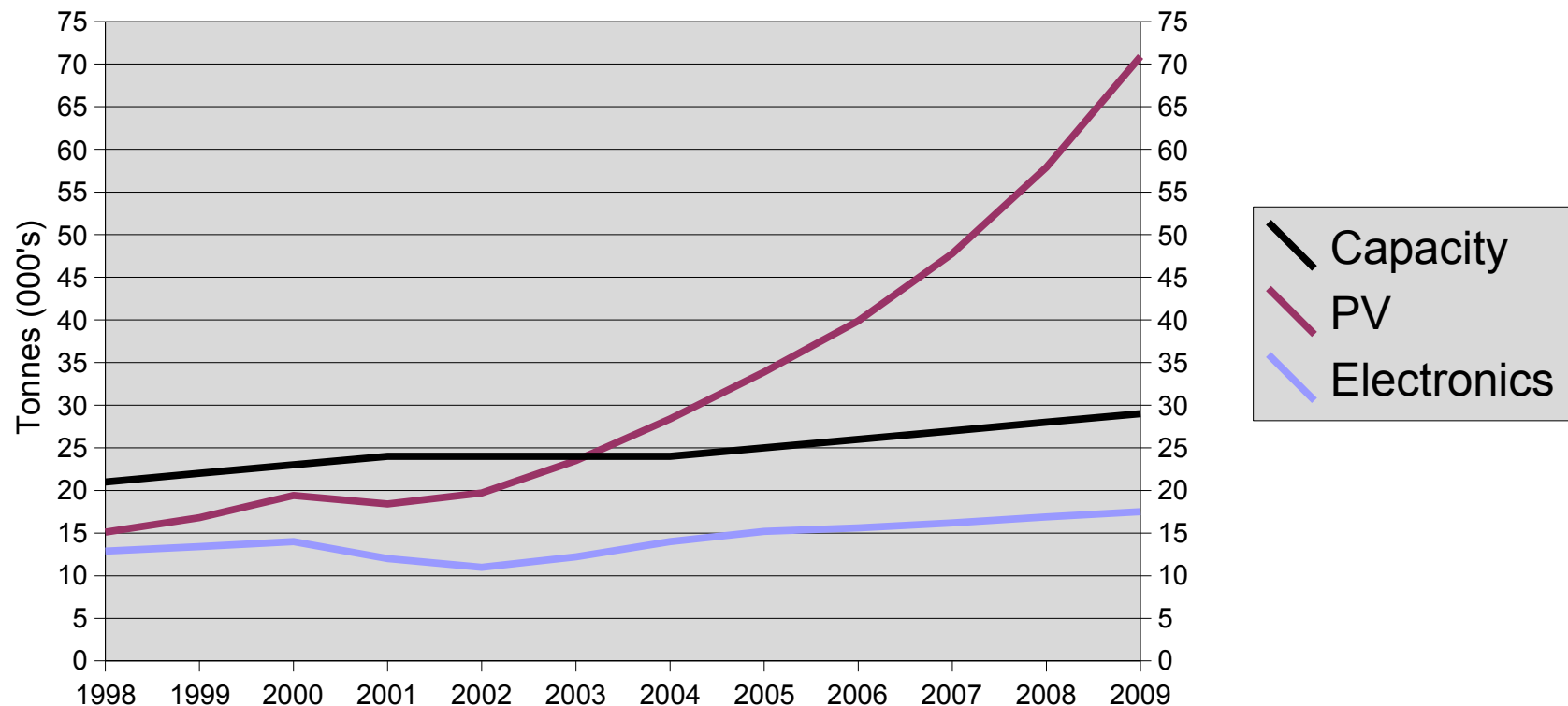




Out of Silicon!

- ◆ PV Mfgs can't meet 2005 demand due to Si shortage
- ◆ Si industry max historical growth 4%
- ◆ Material from new plants \$65/kg (old PV model \$35/kg)

Semiconductor Grade Silicon Feedstock





The NuEdison Module Benefits

- ♦ Module uses 40 – 50% less Silicon (Si)
- ♦ High efficiency (comparable to highest grade Si)
- ♦ 25-35% cheaper
- ♦ 30% lighter
- ♦ Form factor and installation virtually identical to standard modules*
- ♦ Protected by 1 pending and 2 provisional patents

* or better with product follow ons



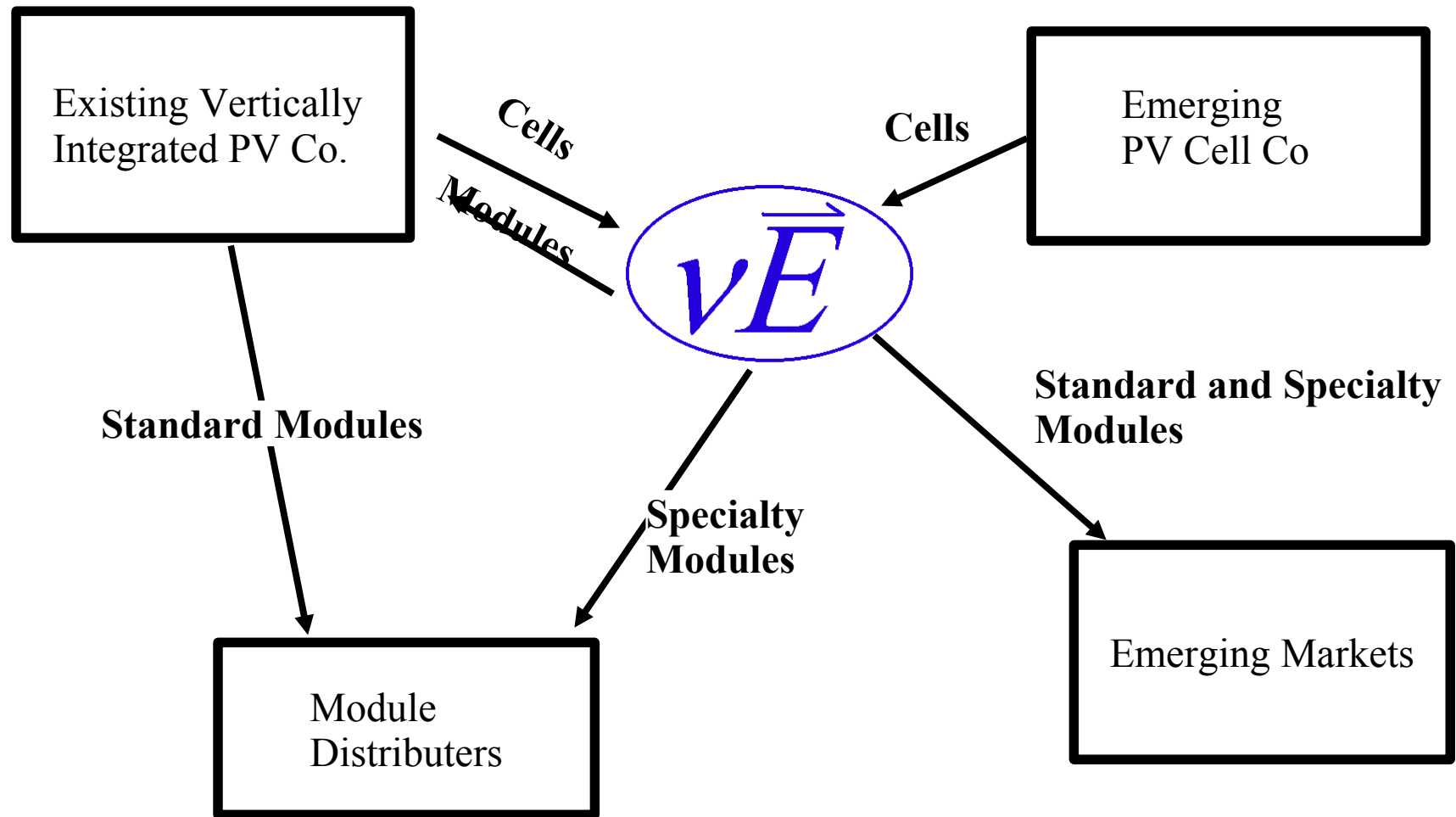
The Photovoltaic (PV) Market

- ◆ Market size: PV still < 1% new generating capacity
 - \$2.0B -2003, \$3.0B – 2004
 - 25-50% growth rate each of last 10 years
- ◆ Impact of incentives
 - Incentives expanding in U.S. (NJ,NY,NM)
 - Market stable in CA despite dramatically reduced incentives
 - RPS* in 18 states (so far) mandate growth for 20 years
 - Kyoto creates new market in rest of world

* Renewable Portfolio Standards



NuEdison Market Position





Value Proposition

Helping our customers make more money

- ◆ 67% Higher revenues from same plant
- ◆ \$3/Cell greater profit (+150%)

“Tale of Two Cells”

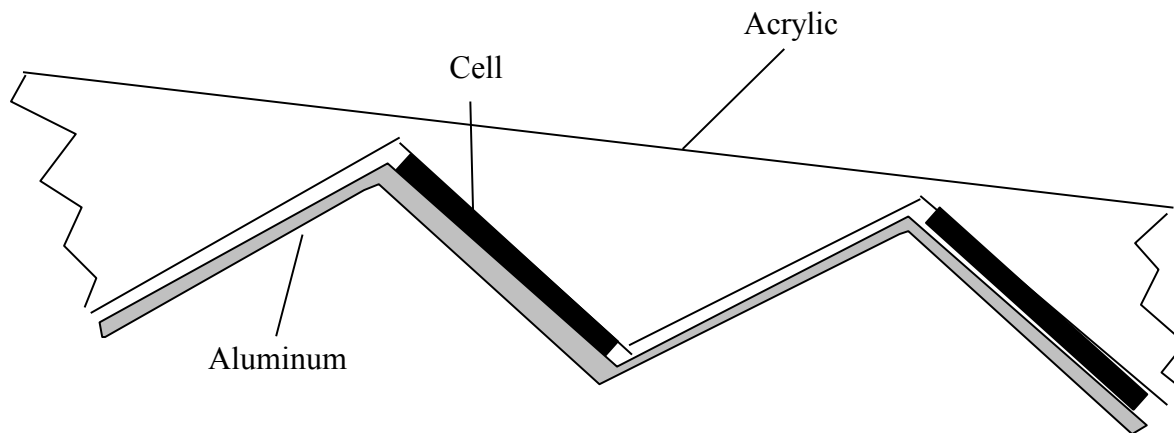
16%, 125mm Solar Cell in Two Different Modules

	Traditional (\$2.06/W)	NuEdison (\$1.63/W)
Cell Cost	\$3.90	\$3.90
Module Cost	\$1.25	\$2.91
Total Cost	\$5.15	\$6.81
Revenue	\$7.13	\$11.90
Profit	\$1.98	\$5.09
Gross Margin	27.7%	42.8%



How It Works

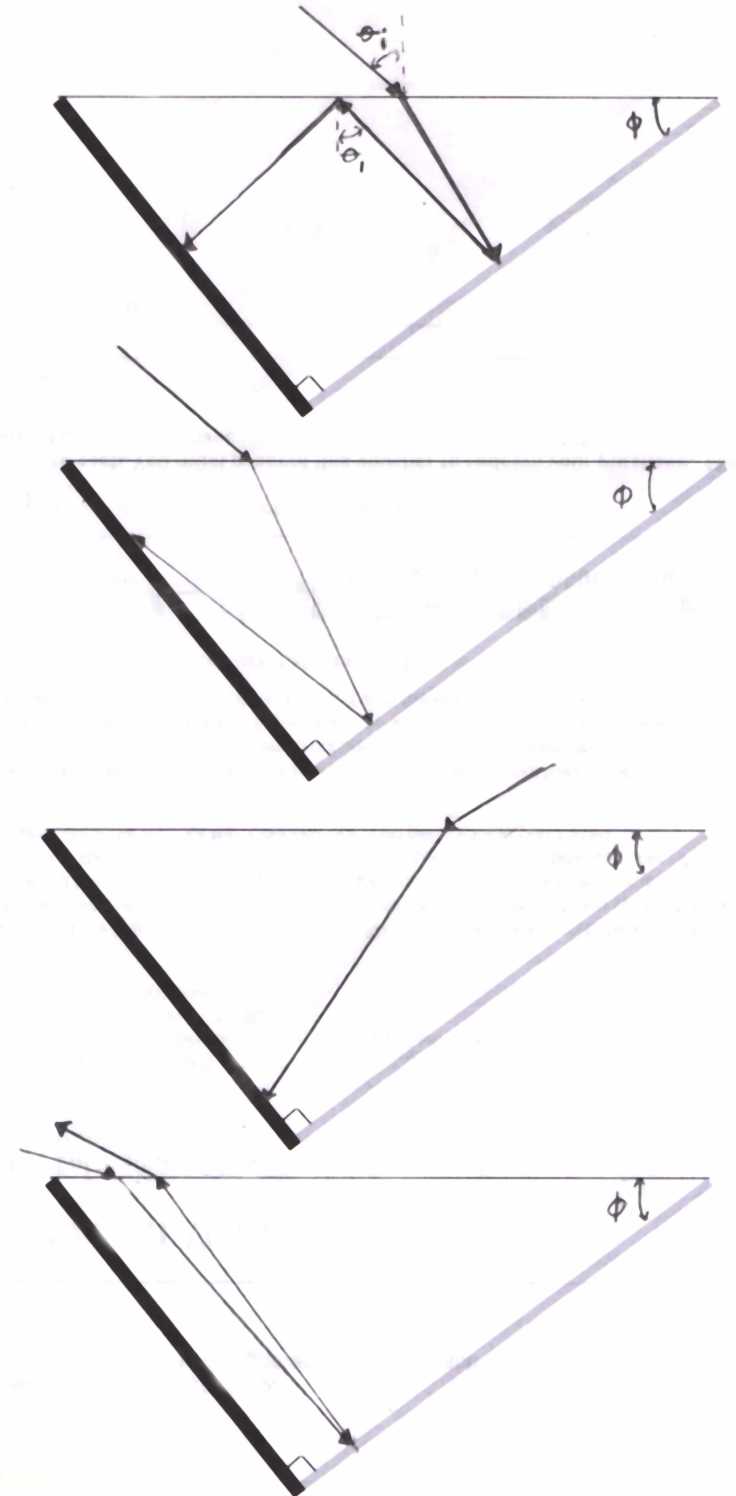
- ♦ Molded acrylic forms bulk of module (~10mm max thickness)
- ♦ Small (12.5mm x 125mm) solar cell coupled to one side of prism (encapsulated in EVA)





Ray Tracing

- ◆ Light reflected off Al is trapped (TIR)
- ◆ Other rays reach the cell directly
- ◆ Rays incident at a shallow angle are rejected – but most of their energy is reflected off a flat module too
- ◆ Concentration factor is $1/\sin(\Phi)$





Prototype





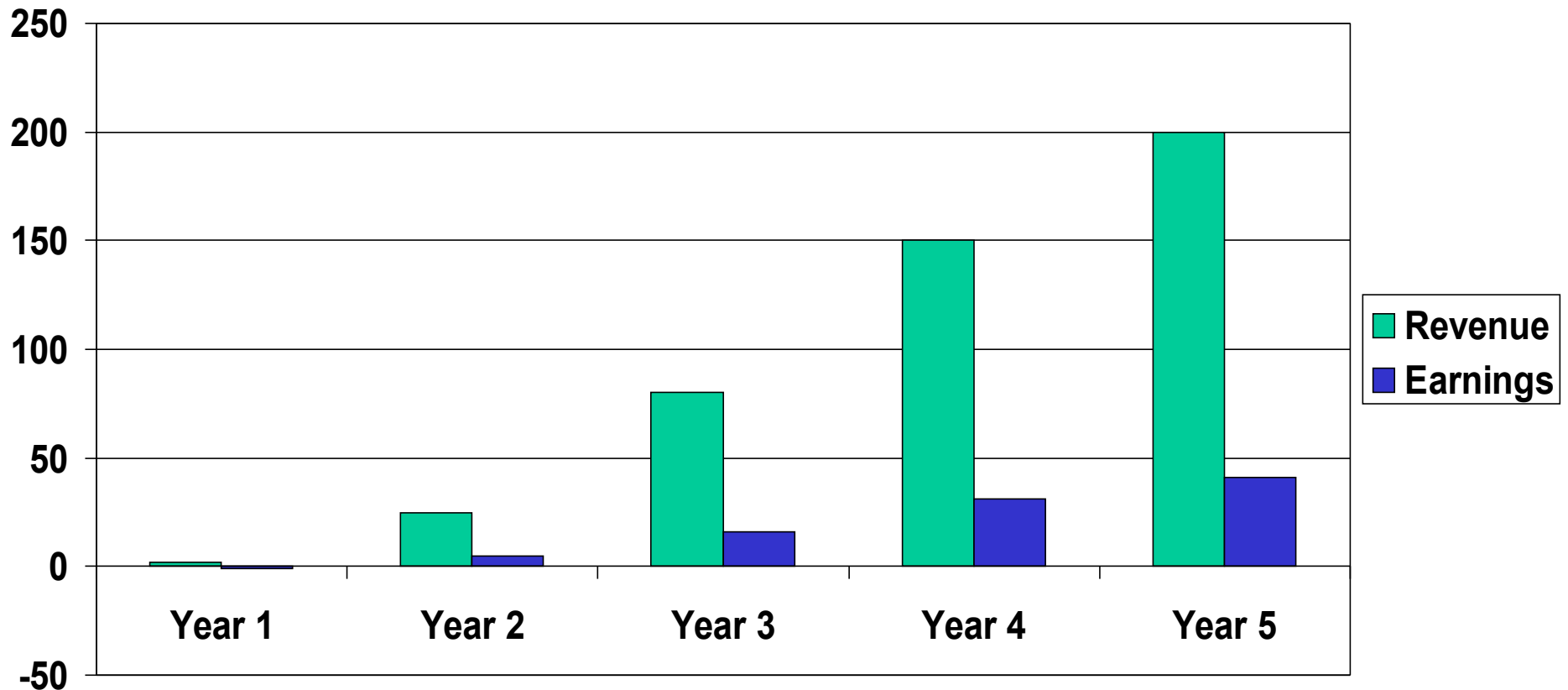
Competitor's Solutions

	Si One Sun	Thin Film	High Conc.	
Low Si Consumption	X	✓	✓	✓
Low Cost	X	✓	✓	✓
High Efficiency	✓	X	✓	✓
Low Maintenance	✓	✓	X	✓
All Climates	✓	✓	X	✓



Revenue Plan

◆ \$200 Million Revenue in 5 years





Financing

- ◆ Series A
 - ◆ \$3 Million
 - ◆ Est. Close Spring '06
 - ◆ Prototype development / Beta tests
 - ◆ Accelerated life testing
 - ◆ UL etc. Certifications
 - ◆ 2MW Pilot line (9 months after funding)
- ◆ Series B
 - ◆ \$3 Million
 - ◆ Customer participation desired
 - ◆ Manufacturing capacity build



NuEdison Team

- ♦ Joe Lichy – Founder, CEO
 - ♦ Inventor of NuEdison module
 - ♦ 15 years R&D experience
 - ♦ 9 years startup experience w/successful exit
- ♦ Ed Bless – Director of operations
 - ♦ Former COO
 - ♦ Quality engineering expert with leadership roles at
 - ♦ Philips Semiconductor
 - ♦ Electroglass
- ♦ Doug Crafts – Manufacturing Advisor
 - ♦ 2 successful startup exits (both sold to JDSU)
 - ♦ Developed major production technologies at Intel



Conclusion

The NuEdison Solution:

- Solves Si supply problem
- Doubles customer earnings
- High efficiency
- No mechanical tracking necessary

Investment Potential

- \$200 Million revenue in 5 years
- \$6 Million total investment



NuEdison

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Product Roadmap

- ♦ Molded plastic body, tunability of the concentrator offer the opportunity for unique products:
 - ♦ North Facing, Vertical, and High Latitude optimized modules
 - ♦ Up to 2.8x concentration in these cases
 - ♦ Only economical solution for low light areas
 - ♦ Germany (largest PV market) > 45°N Latitude
 - ♦ Building integrated modules (solar shingles)
 - ♦ Custom shapes and sizes
 - ♦ Higher concentration modules for tracking systems



Module Cost Reduced

Cell cost savings greater than added module costs

- ◆ Savings higher for higher efficiency cells

167W Module Using 16%, 125mm Solar Cells

	Traditional	\$/W	NuEdison	\$/W
Cell Cost	\$261	\$1.56	\$156	\$0.93
Module Cost	\$84	\$0.50	\$116	\$0.70
Total Cost	\$344	\$2.06	\$272	\$1.63
Revenue	\$476	\$2.85	\$476	\$2.85
Profit	\$132	\$0.79	\$204	\$1.22
Gross Margin	27.7%		42.8%	



Customer Response

- ♦ Schott Solar

- ♦ *“Absolutely interested in a solution along these lines.”*
- ♦ Already uses OEM for modules in Europe (75%)
- ♦ Low Si consumption process (not ideal customer)

- ♦ Evergreen

- ♦ Potential synergy in use of small cells
- ♦ Solves a problem we are having
- ♦ Low Si consumption/ Low efficiency process (not ideal customer)

- ♦ BP Solar

- ♦ Wants to see prototype with BP Cells (sent material)
- ♦ Will test modules in different climates